



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

July 1, 2016

Christine Lehnertz
General Superintendent
Golden Gate National Recreation Area
Fort Mason, Building 201
San Francisco, California 94123

Subject: Draft Environmental Impact Report/Statement (DEIR/EIS) for the Vista Grande Drainage Basin Improvement Project, Golden Gate National Recreation Area, San Francisco and San Mateo Counties, California (CEQ # 20160082)

Dear Ms. Lehnertz:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

According to the DEIR/EIS, the proposed project would address storm-related flooding in Daly City by expanding the capacity of the Vista Grande Canal and Tunnel, while allowing for diversion of stormwater to Lake Merced to augment lake water levels. The project includes a Lake Management Plan that identifies additional in-lake management actions to improve water quality, with a focus on addressing dissolved oxygen and pH levels, since Lake Merced is listed on the Clean Water Act Section 303(d) list of impaired waters for these criteria.

Based on our review, we are rating the Proposed Project and alternatives as *Environmental Concerns – Insufficient Information (EC-2)* (see enclosed “Summary of Rating Definitions”). Our concerns regard the quality of water released into the Lake during the up-to-3-year construction phase, the level of commitment to in-lake management actions to improve water quality, and the adaptive management strategy, which is not well defined. We recommend Scenario 2 be implemented for the construction phase, which would route stormwater to the San Francisco Public Utilities Commission (SFPUC) combined sewer system, and that the capability to treat flows prior to direct release into Lake Merced be included, should the SFPUC system be unable to accommodate larger storm flows or should Scenario 1 be selected. Please see our enclosed detailed comments for additional recommendations for the project and Final EIR/EIS.

EPA appreciates the opportunity to review this DEIR/EIS. When the Final EIR/EIS is released for public review, please send one copy to the address above (mail code: ENF-4-2). If you have any

questions, please contact me at (415) 972-3521, or contact Karen Vitulano, the lead reviewer for this project, at 415-947-4178 or vitulano.karen@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kathleen Martyn Goforth', with a long horizontal flourish extending to the right.

Kathleen Martyn Goforth, Manager
Environmental Review Section

Enclosure: Summary of EPA Rating Definitions
EPA's Detailed Comments

cc: Xavier Fernandez, S.F. Bay Regional Water Quality Control Board
Patrick Sweetland, City of Daly City Department of Water and Wastewater Resources
Obi Nzewi, San Francisco Public Utilities Commission

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

“LO” (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

“EC” (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

“EO” (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

“EU” (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

Category “1” (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category “2” (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category “3” (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

Water Quality and Hydrology

The project purpose is to reduce storm-related flooding in the Vista Grande Drainage Basin while providing the additional benefit of augmenting the water level of Lake Merced. Once the project is constructed, it would allow diversion of some stormwater to Lake Merced, while maintaining the current discharge of stormwater to the Pacific Ocean via an expanded subterranean tunnel with increased conveyance capacity.

As the DEIR/EIS notes, Lake Merced currently does not meet the Basin Plan Water Quality Objectives for dissolved oxygen (DO) and pH, and, in 2003, EPA included Lake Merced on the Clean Water Act Section 303(d) list of impaired waterbodies for these criteria (p. 3.9-23). Because of this, the project aims to address these water quality impairments while raising lake levels over time (p. 3.9-127).

Construction-phase impacts

According to the DEIR/EIS, construction of the expanded tunnel would take between 17 and 37 months to complete, during which time stormwater and non-stormwater flows (car-washing, irrigation, etc.) would have no discharge conduit. These flows would either all be directed to Lake Merced, untreated (Scenario 1) or, with agreement by the San Francisco Public Utilities Commission (SFPUC), base flows and the first hour of storm flows following a defined antecedent dry period would be routed to the SFPUC combined sewer system (Scenario 2) (p. 3.9-67-69). The DEIR/EIS evaluates both scenarios since Daly City and SFPUC do not have an agreement for such diversions.

The DEIR/EIS provides the results of stormwater sampling that was conducted in the Vista Grande Canal during 2011 and 2012 wet and dry periods to characterize the baseline water quality. These results showed elevated levels of bacteria, certain metals, and nutrients compared to baseline concentrations in the Lake, and it does not appear that stormwater was sampled for other stormwater pollutants, such as pesticides, polychlorinated biphenyls (PCBs), or other metals. We have concerns regarding potential water quality impacts from the discharge of untreated storm flows directly into the Lake, particularly under Scenario 1. Under Scenario 2, this concern would be alleviated by the routing of base flows and first flush stormwater flows to the SFPUC combined sewer system during construction.

Recommendation: Provide an update on the diversion agreement between Daly City and SFPUC in the Final EIR/EIS (FEIR/EIS). We strongly recommend Scenario 2 be implemented for the construction phase of the project to address water quality concerns. In addition, we recommend that treatment for solids, via settling tanks, occur to the maximum extent possible, prior to any direct release into the Lake (i.e. the storm flows that discharge to the Lake after the “first flush” under Scenario 2, and all flows under Scenario 1). If Scenario 1 is selected, we also recommend additional sampling occur for the other common stormwater pollutants mentioned above, so that the impacts from Scenario 1 are fully disclosed to decision-makers in the Final EIR/EIS.

Operation-phase impacts

The project includes creation of a small treatment wetland that is predicted to treat base flows and low-volume stormwater flows and reduce levels of bacteria, metals, and nutrient concentrations. The DEIR/EIS concludes that operation of the project would improve Lake Merced water quality over the duration of operations (p. 3.9-106); however, this conclusion depends to a considerable degree on the

successful operation of the treatment wetlands and the accuracy of their estimated performance. The water quality impact assessment is based largely on predictive modeling, and clarifications are needed regarding the assumptions used to project wetland performance.

Recommendations: We recommend clarifying information, as discussed below, be included in the FEIR/EIS:

- For the direct algae filtration of Lake surface waters using the treatment wetlands (p. 3.9-103), the DEIR/EIS refers to certain calculations (which are not provided in the document) to assess the feasibility of using the treatment wetlands in such a manner. We recommend that the FEIR/EIS include an appendix that summarizes the feasibility calculations and considerations. It is also not clear whether the algae filtration was included in modeling results, such as those shown in Figure 3.9-19. Page 3.9-106 refers to further improvements in water quality from lake management actions, and such improvements may be above and beyond those displayed in the modeling results; however, this is not clear and should be clarified.
- The FEIR/EIS should discuss the assumed removal rates for nitrogen in the treatment wetlands (basic and advanced wetlands) and the basis for those assumptions.
- Appendix A (Lake Management Plan) notes that the treatment capacity of the wetlands would be about 1.4 cubic feet per second (cfs). The wetlands would be used to treat “low volume” stormwater flows and, after the initial storm event of the winter season, if screened storm flows meet diversion criteria, flows exceeding the capacity of the treatment wetlands would be routed directly to the Lake. Presumably the capacity limitations of the treatment wetlands were included in the modeling, but this should be clarified in the FEIR/EIS. The Lake Management Plan also indicates that criteria for diverting stormwater into the Lake remain to be developed. The FEIR/EIS should explain the criteria that were used for the modeling, and how the conclusions concerning water quality impacts could be affected if different criteria are ultimately used in the future.

Lake Management Plan/Adaptive Management

In general, the conclusions regarding water quality impacts to Lake Merced appear to have substantial uncertainty. The project’s Lake Management Plan includes in-lake management actions and an adaptive management strategy. The DEIR/EIS notes that continued analysis and reporting under the Lake Management Plan would reduce uncertainty relating to long-term water quality trends, allow adjustment of operational protocols, and inform BMPs to maximize water quality improvements (p. 3.9-106). This adaptive management approach is an important component of the project, yet there is little information regarding how it would be implemented.

Additionally, it is not clear that the in-lake treatment actions, which are important to address water quality, will definitely occur, since the DEIR/EIS sometimes presents them as optional (“Should the additional in-lake treatment components of the Lake Management Plan be implemented...” p. 3.4-97). These in-lake management actions are important and are presented as part of the basis, along with the treatment wetlands, for a less-than-significant impact determination for water quality in the DEIR/EIS.

Recommendation: Include an outline of the adaptive management approach for the Lake Management Plan. Identify general administration/personnel who will implement the Plan, including roles and responsibilities; the financial, technical, and human resources needed to perform the monitoring and respond to the results; funding sources for plan implementation; the

process for altering management decisions based on monitoring results; the data management system; and the process for communicating results.

Include, in the FEIR/EIS, a firm commitment to implement the in-lake treatment actions identified in the DEIR/EIS, including the removal of algae and the flushing of the Lake to reduce the elevated background pH. Coordinate in-lake treatment actions with the Demonstration Aeration Mixing System project described on page 31 of the Lake Management Plan that SFPUC will be implementing in Lake Merced's South Lake. Continue to work closely with the Regional Water Quality Control Board towards approval of the Lake Management Plan.

Water Quality Assessment

A Water Quality Assessment (WQA) was prepared for Lake Merced and the Vista Grande Canal to document existing hydrologic and water quality conditions and provide analysis of potential changes to those existing conditions as a result of project operations (p. 3.9-13). The impact assessment references this document over 40 times, however it was not included as an appendix to the DEIR/EIS. The Council on Environmental Quality (CEQ) advises that the appendix should include material that pertains to preparation of the EIS and that lengthy technical discussions of modeling methodology, baseline studies, or other work are appropriately placed here. CEQ indicates that, if at all possible, the appendix should accompany the EIS, or if too voluminous to circulate, should be placed in a conveniently accessible location or furnished upon request. While the WQA was provided upon request, it is not a formal appendix to the DEIR/EIS, nor was it made available on the project websites.

Recommendation: We recommend including the WQA in the formal appendices of the FEIR/EIS and making it available on the project websites.

Upstream Watershed BMPs

The project description includes "A prioritized suite of best management practices that may be implemented within the Vista Grande Basin storm drain system upstream of the Vista Grande Canal and/or within the Lake Merced watershed" (p. 2-5), which are described in the Lake Management Plan in Appendix A. These Watershed BMPs include "Detention and Filtration" which involves building infrastructure for stormwater filtration, such as bioretention/rain gardens, vegetated filter strips, sand filters, and vegetated swales throughout the Vista Grande Watershed (App A, p. 24). We agree that adding upstream filtration is valuable and recommend that it be coupled with a BMP to disincentivize actions, such as the replacement of residential lawns with pavement, that increase impervious surfaces in the watershed. Unlike the eliminated Downspout Disconnection BMP, such a BMP would involve Daly City policy and planning actions, and would not be solely dependent upon homeowner participation.

Recommendation: Describe, in the FEIS, any existing local or regional policy or planning rule that limits the extent of impervious surfaces on residential and other properties. If no such policy or rule applicable to Daly City or the watershed exists, discuss options for the establishment of same to create disincentives for the addition of impervious surfaces to existing residential and other property in the watershed. Determine and disclose whether other cities in the Bay Area have such a policy or rule. Include, as a BMP in the Lake Management Plan, a measure, such as the establishment of a policy or planning rule, to reduce the addition of new impervious surfaces in the watershed.

Rainwater Harvesting BMP

The Lake Management Plan eliminates the watershed BMP of installing rain barrels and cisterns in the Vista Grande/Lake Merced watershed for rainwater harvesting, which could reduce peak stormwater flows and conserve water for later non-potable use. Rainwater harvesting was eliminated because it could reduce the amount of water available for diversion to the Lake, thus conflicting with the Lake Management Plan's objective of increasing surface water input to the Lake (Appendix A, p. D-3). The DEIR/EIS anticipates that considerable stormwater would still flow through the Vista Grande Tunnel to the Pacific Ocean after project completion. This suggests that sufficient water may be available for diversion to the Lake along with some rainwater harvesting in the watershed, thereby maximizing the reuse potential of the available water.

Recommendation: Explain, in the FEIR/EIS, why no rainwater harvesting at all would be feasible, given the anticipated post-construction volume of stormwater flow to the ocean.

Impacts to Wetlands during Construction

The DEIR/EIS states that project construction could have a substantial adverse effect on wetlands and other jurisdictional waters from "temporary and permanent discharges of structures and/or fill within waters and wetlands, and/or alterations of the bed and/or banks of a lake or stream" (p. 3.4-67). The DEIR/EIS does not quantify these construction-phase impacts. It simply references various agency permit requirements, and states that unavoidable impacts to wetlands and other waters will trigger a requirement for compensatory mitigation that will be aimed at creating, restoring, or enhancing similar ecological functions and services as those displaced. It also states that this mitigation (Mitigation Measure 3.4-8b, Compensation for Impacts to Wetlands and Riparian Habitat) would reduce the impacts associated with direct loss to a less-than-significant level (p. 3.4-70). The primary permit for fill to waters of the U.S. is a Clean Water Act Section 404 permit, and it is true that an individual permit would trigger a requirement for compensatory mitigation; however, if the project qualifies for a Nationwide General Permit, compensatory mitigation may or may not be required. Because the DEIR/EIS does not quantify impacts, it is not clearly disclosing the proposed mitigation for the project.

Recommendation: In the FEIR/EIS, quantify the acreage of impacts, both temporary and permanent, to wetlands and waters of the U.S. from construction of the project. Indicate whether the project is likely to qualify for Nationwide CWA Section 404 permit(s), and if so, which one(s). Update the discussion of mitigation for Impact BIO-8 in the FEIR/EIS as appropriate.

Demolition Waste

The description of project construction quantifies the volume of demolition debris that would be generated by the project and indicates that all of the 600 cubic yards (cy) of concrete and brick canal lining in the canal area, 60 cy of asphaltic concrete at the John Muir Drive crossing, and 50 cy of concrete and brick canal lining at the East Portal would be disposed of at a landfill. It also indicates that the 2,500 cy of brick tunnel lining generated from the tunnel and shaft would "likely be disposed of along with the tunnel spoils at a landfill" (p. 2-26). The 300 cy of brick and shotcrete lined tunnel and concrete outlet structure would be "disposed of", presumably also at a landfill.

The DEIR/EIS cites the Daly City Construction and Demolition Recycling Program, which requires a minimum of 60 percent of debris generated by "certain construction and demolition projects" be recycled (p. 3.16-5), and the San Francisco Construction and Demolition Ordinance that mandates the recycling of construction and demolition (C&D) debris generated in the City of San Francisco. This ordinance prohibits any C&D materials from being sent directly to a landfill, with a minimum of 65 percent of the material being diverted at the recycling facility.

Recommendation: Demolition waste from the project should be recycled to the maximum extent, consistent with Daly City and San Francisco diversion goals. Commit to this diversion and update the project description's discussion of the final disposition of these materials in the FEIR/EIS.

Additional comments

- The DEIR/EIS indicates stormwater discharges are regulated under the 2009 Municipal Regional Permit (MRP) issued by the San Francisco Bay Regional Board (p. 3-9.1). The FEIR/EIS should be updated to reflect the 2015 reissuance of the MRP. The 2015 MRP is available at: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Municipal/index.shtml
- The DEIR/EIS states that potential impacts on utilities and services are not considered under NEPA; however, impacts to utilities are frequently evaluated in NEPA documents, especially since overtaxing utilities, especially water and wastewater utilities, can result in significant environmental impacts. It is appropriate to evaluate utilities and public services under NEPA and we do not believe it is accurate to say that these impacts are not considered under NEPA.
- The DEIR/EIS states that collected garbage is directed to the Daly City Mussel Rock Transfer Station in Daly City (p. 3.16-4). According to the City of Daly City's website¹, Mussel Rock Transfer Station closed in February 2016. This sentence should be updated in the FEIR/EIS.

¹

http://www.dalycity.org/City_Hall/City_News_Announcements/City_News/Mussel_Rock_Transfer_Station_Closure_Feb_1st.htm